

United States Department of Agriculture



Natural Resources Conservation Service  
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**Transmitted via Email**

March 3, 2005

MINNESOTA BULLETIN NO. 190-5-10

**SUBJECT: ECS – CALCULATING THE WINDWARD (UPWIND) SNOW CATCH AREA  
FOR LIVING SNOW FENCES.**

Purpose. To provide guidance on measuring the windward (upwind) snow catch area for living snow fences.

Expiration Date. September 30, 2006.

In CRP Note #114 (Conservation Message #169) guidance on measuring the windward (upwind) snow catch area was misleading. It was stated that the Living Snow Fence Design Module, host on the MnDOT webpage, would calculate this area, however, it does not.

Models of living snow fences show that around 66 ft. measured perpendicularly from the most windward row of a living snow fence snow accumulation decreases dramatically. Moving closer in to the living snow fence snow accumulation increases drastically. The models also show that the height of a living snow fence does not greatly alter the windward snow accumulation depth.

In consultation with MnDOT, based on the living snow fence models, it was decided that the maximum windward distance perpendicular to the most windward row of the living snow fence is 66 ft. The windward snow catch area is calculated by multiplying the perpendicular distance (width) by the length of the most windward living snow fence row. While the 66 ft is a maximum, there is no minimum width. This windward snow catch area is eligible for cost share if the applicant takes this area out of production. The CRP Note #114 has been updated for this practice (CP17A); refer to the note for more information.

Attached to this bulletin is a diagram of a living snow fence showing the snow catch areas.

If you have any questions, please contact Ginger Kopp at (651) 602-7909.

WILLIAM HUNT  
State Conservationist

Attachment

DIST: ASTC(FO)  
FO  
Greg Anderson, FSA

# Living Snow Fence Diagram

(Not to scale)

